



DCCPS FELLOWS SYMPOSIUM 2024

DCCPS Fellows Symposium 2024 Abstracts and Biosketches for Oral Sessions

Oral Session 1:

Title: *Assessment of Experiences, Attitudes, and Behaviors Related to Climate Change, Extreme Weather Events, and Natural Disasters in Federal Surveys*

Abigail Muro, BS, Health Communication and Informatics Research Branch, BRP

Co-authors: Heather D'Angelo, PhD, MHS

Mentor: Heather D'Angelo, PhD, MHS, Program Director, Health Communication and Informatics Research Branch, BRP

Abstract: Climate-related extreme weather events, such as flooding, extreme heat, and wildfires, are increasing in frequency and intensity. These events are directly and indirectly associated with poor health outcomes through increased exposure to environmental risk factors and healthcare system disruptions. Understanding public awareness and experiences with climate-related extreme weather events is critical for developing public health programs and messaging. Yet little is known about federal surveillance efforts on these topics. To examine US federal surveys for the inclusion of items assessing individuals' awareness, experiences, perceptions, and behaviors related to climate change, extreme weather events, and/or natural disasters, questionnaires from publicly available, nationally representative surveys fielded at least two times between Jan. 1, 2013 and Dec. 31, 2023 were reviewed. Questionnaires were reviewed for items assessing individual awareness, experiences, perceptions, and behaviors related to climate change, extreme weather events, and natural disasters. Five of 28 federal surveys reviewed included items about climate, extreme weather, or natural disasters. Survey items primarily assessed disaster preparedness. Four surveys assessed personal experiences with natural disasters. Only one survey assessed climate change risk perception while no surveys assessed climate-related knowledge, attitudes, or beliefs. Surveys with the most climate and extreme weather-related items had few or no health-related items. Given the potential impact of climate-related weather events on health, nationally representative, ongoing surveys are needed that assess public awareness, risk perceptions, and experience with climate-related extreme weather events. Adding items to current health surveillance efforts could allow for the generation of national estimates of climate and extreme weather impacts on health outcomes and inform messaging that can increase climate change mitigation and preparedness behaviors.



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Biosketch: Abigail Muro, BS, is a Cancer Research Training Award (CRTA) fellow in the BRP Health Communication and Informatics Research Branch (HCIRB), where she is primarily working on projects related to climate change, environment, and health. In addition, she has contributed to research on Artificial Intelligence' (AI)'s representation of cancer patients, telehealth and cancer, discussions of cancer and other health topics on social media, and misinformation mitigation. Ms. Muro's research interests include environmental health, cancer epidemiology, and health equity. She earned a Bachelor of Science degree in Community Health from the University of Maryland (UMD). While there, she led a qualitative research study on the mental health seeking behaviors of Black students at UMD as part of the Behavior and Community Health honors program. During her final semester, she interned with HCIRB where she enjoyed working on projects related to climate change and cancer.

Title: *The Medicare Current Beneficiary Survey: Exploring the Complex Landscape of Cancer Care Burden in Older Survivors*

Kirsten Y. Eom, PhD, MPH, Outcomes Research Branch, HDRP

Co-authors: Amy J. Davidoff, PhD, MA

Mentor: Amy J. Davidoff, PhD, MA, Program Director, Healthcare Assessment Research Branch, HDRP

Overview: This study demonstrates the value of the Medicare Current Beneficiary Survey (MCBS) in understanding the multifaceted experiences of older cancer survivors. **Background:** The MCBS complements the SEER-Medicare database by providing longitudinal survey data on various aspects of older adults' lives. This linked data source offers insights into the burden of cancer among older survivors. This study showcases the MCBS by examining sociodemographic and health/cancer-related characteristics, healthcare utilization, and spending patterns among cancer-diagnosed respondents. **Methods:** Using SEER-Medicare linked with MCBS data (2015–2020), we analyzed 1,902 community-residing respondents with cancer diagnoses prior to their baseline survey and >1 year follow-up. We estimated summary statistics and presented selected characteristics. **Results:** The study population included respondents with prostate (24%), breast (21%), and skin (9%) cancer; 45% had localized cancer. Females comprised 52%, with 43% aged 75–84 years. Most were White (83%), married (55%), and had at least a high school education (87%). Only 6% were working, and 35% had income below 200% of the Federal Poverty Level. While 46% reported excellent/very good health, 32% had limitations in activities of daily living. About 41% had smoked, and 61% consumed alcohol. Approximately 18% tried to keep sickness to themselves, and 12% avoided doctors. Only 6% had trouble getting the needed healthcare, and 7% had problems paying medical bills. Most (80%) were satisfied with care quality and access. Average total payments were \$18,485.62, with Medicare payments of \$11,028.87 and out-of-pocket costs of \$2,682.06. The mean percentage of out-of-pocket to beneficiary liability was 45.05%. **Conclusion:** This study highlights the potential of the MCBS as a complementary data source to SEER-Medicare. It offers a comprehensive understanding of cancer burden from the patient's perspective.



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These insights can inform efforts to improve quality of life, care access, and the financial well-being of older adults with cancer.

Biosketch: Kirsten Y. Eom, PhD, MPH, is a Program Director in the Outcomes Research Branch within the Healthcare Delivery Research Program at the National Cancer Institute. Her research focuses on enhancing high-quality cancer care delivery and improving outcomes for cancer patients. Dr. Eom investigates multilevel factors influencing cancer care delivery and outcomes across diverse settings. She examines how access to care, service quality, and healthcare utilization patterns impact patient outcomes throughout the cancer care continuum. Her work on individual- and area-level factors affecting cancer screening, treatment decisions, and care integration provides insights into the relationships between healthcare systems, patient behaviors, and outcomes. She also evaluates the impact of health reforms on cancer care delivery. Dr. Eom aims to develop and assess innovative strategies to optimize cancer care delivery systems, improving outcomes across diverse populations and healthcare settings. She earned her PhD in Health Services Research and Policy from the University of Pittsburgh in 2021 and her MPH from Brown University in 2013. She completed a postdoctoral fellowship at Case Western Reserve University and held a position in the Healthcare Assessment Branch at the National Cancer Institute.

Title: *Ethnic Identity and Health Information Avoidance: Exploring the Moderating Roles of Self-Affirmation and Optimism*

Jacqueline Hua, PhD, MPH, Basic Biobehavioral and Psychological Sciences Branch, BRP

Co-authors: Amanda Acevedo, PhD and William Klein, PhD

Mentors: Amanda Acevedo, PhD, Program Director, Basic Biobehavioral and Psychological Sciences Branch, BRP; and William Klein, PhD, Associate Director, Office of the Associate Director, BRP

Background: Although learning information about one's risk for disease can be beneficial for disease management and mortality risk reduction, people often avoid such information. Health information avoidance can be mitigated with threat management resources, such as engagement with ethnic identity, self-affirmation, and optimism. However, few studies have examined whether these resources are associated with avoidance among racialized populations that experience health disparities. The present study examines the association between engagement with ethnic identity and health information avoidance as well as the potential moderating effects of self-affirmation and optimism in an African descent cohort. **Method:** We conducted a secondary analysis of data from the ClinSeq Study®. Participants were individuals who lived in Washington, D.C. and self-identified as African, African American, or Afro-Caribbean ($N = 407$, 75.2% female, Mean age = 57.52 years, SD age = 6.22 years). Participants completed a survey with measures of engagement with ethnic identity, tendency to self-affirm, dispositional optimism, and tendency to avoid health information. We used the Hayes PROCESS



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macro to test a moderated moderation model with age, sex, education, and income as covariates.

Results: The model revealed that there was a positive association between ethnic identity and health information avoidance when self-affirmation was low, producing a significant interaction ($b = -.25$, $SE = .11$, $p = .03$, $95\% CI = -.47, -.02$). Further examination with the Johnson-Neyman technique suggested that the association between ethnic identity and health information avoidance weakened as self-affirmation increased, and the association was non-significant when self-affirmation was greater than -2.82 (range = -2.97 - 1.03). No other associations emerged as significant. **Conclusion:** These findings suggest that self-affirmation is a protective factor against health information avoidance, particularly among individuals of African descent who are highly engaged with their ethnic identity. Future research should consider ethnic identity and self-affirmation as factors in health information avoidance.

Biosketch: Jacqueline (Jacky) Hua, PhD, MPH, is a Cancer Prevention Fellow in the Basic Biobehavioral and Psychological Sciences Branch in the Behavioral Research Program. At the NCI, her research focuses on the intersection of social and health psychology. Specifically, Dr. Hua is interested in how psychological and social factors, such as cultural values, self-affirmation, and social support influence cancer-related decision making and cancer preventive health behaviors. She is also interested in the factors that contribute to racial/ethnic disparities in cancer and identifying strategies for reducing such disparities. Dr. Hua earned a PhD in psychological sciences with a concentration in health from the University of California, Merced. Her dissertation proposed and tested a theoretical model informed by research in health psychology and behavioral economics to predict decisions to avoid health information. As part of her fellowship, she also earned a Master of Public Health degree in epidemiology from the University of California, Berkeley.

Title: *Tree-Based Machine Learning: Exploring Strategies to Model Risk Factor-Cancer Relationships*

Audrey Goldbaum, PhD, MPH, Risk Factor Assessment Branch, EGRP

Co-authors: Jill Reedy, PhD, MPH, RDN, and Marissa Shams-White, PhD, MSTOM, MS, MPH, and Paige Miller, PhD, MPH, RDN

Mentor: Jill Reedy, PhD, MPH, RDN, Branch Chief, Risk Factor Assessment Branch, EGRP

Overview: This project aims to understand how tree-based machine learning (ML) algorithms can be used to visualize complex interactions among risk factors and their relationship to colorectal cancer (CRC) risk. **Background:** Modifiable risk factors such as diet, physical activity, and alcohol are associated with multiple cancer outcomes. Many researchers apply regression methods to examine their effects on cancer risk. However, a limitation of this approach arises when considering the inclusion of multiple and multilevel interactions and nonlinear effects, important features needed to model the complex nature of risk factors. A potential way to address this issue is through tree-based ML algorithms that identify relationships among covariates that best predict the outcome. However, since these algorithms are



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optimized for prediction accuracy, interpretation of the covariate interactions presented in a decision tree can be limited and are dependent on which covariates were included and how they were presented (e.g., continuous, or categorical). To better understand the implications of using tree-based ML algorithms in data analysis, we will test how covariate selection influences tree structure and prediction accuracy using a relatively new tree-based ML algorithm, Optimal Survival Trees (OST). **Methods:** We used the prospective NIH-AARP Diet and Health Study cohort with time-to-CRC as the outcome and the numerous diet-related variables available in the dataset to begin testing how covariate selection influences tree structure and prediction accuracy. We used a 70/30 train-test split and Harrell's c-statistic for prediction accuracy. **Results and Conclusion:** We demonstrated the initial findings on the similarities and differences that occur in tree structure and prediction accuracy given different representations of diet variables. We also present observations on lessons learned when preparing the data and running such analyses.

Biosketch: Audrey Goldbaum, PhD, MPH, is a Cancer Prevention fellow in the Epidemiology and Genomics Research Program's (EGRP) Risk Factor Assessment Branch (RFAB). In this role, she works on projects related to methods used to measure and model how lifestyle factors such as nutrition, obesity, physical activity, and sleep influence or predict cancer development and how these methods can be applied in research to improve public health and impact public policy. In particular, she is interested in exploring the methodological boundaries and ethical implications when using machine learning for analysis. Prior to joining the NCI, Audrey pursued her PhD at Purdue University where she used animal models to examine the independent and interacting effects of obesity, diet, and the gut microbiota in colorectal cancer development. To broaden her research background into the realm of public health, she earned an MPH from the Harvard T.H. Chan School of Public Health.

Title: *Satisfaction with Internet Access, Cancer Information-Seeking and Digital Health Technology Use—Findings from the 2022 Health Information National Trends Survey (HINTS 6)*

Maria A. Rincon, PhD, MPH, Behavioral Research Program, Office of the Associate Director

Co-authors: Kelly Blake, ScD and Richard P. Moser, PhD

Mentor: Richard P. Moser, PhD, Training Director and Research Methods Coordinator, Behavioral Research Program, Office of the Associate Director.

Overview: To assess if satisfaction with Internet connection predicts use of digital health resources and cancer information-seeking experiences among US adults. **Background:** Internet access has been characterized as a “super determinant of health”; facilitated access to online resources and services can reduce inequities in the ability to find and utilize pertinent health information. This is particularly relevant to cancer patients, who exhibit greater need for health services and information, much of which can be accessed online. While user satisfaction is commonly assessed in e-health interventions,



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the relationship between satisfaction with at-home Internet, use of digital health resources, and cancer information-seeking experiences is less known. **Methods:** Data from the 2022 Health Information National Trends Survey (HINTS), a probability-based, nationally representative sample of non-institutionalized US adults was used. Regression models were employed to assess if satisfaction with at-home Internet was associated with patient portal access, attending telehealth appointments over the past 12 months, and cancer information-seeking experiences. Satisfaction with the Internet was dichotomized as low (not at all, not very, somewhat satisfied) and high (very and extremely satisfied). All models were adjusted by age, education, health insurance access, household income and geography (urban/rural). **Results:** Participants reporting low satisfaction with the Internet were more likely to agree it took a lot of effort getting the cancer information they needed [OR=1.80 (1.35, 2.43); $p<0.001$] and that they felt frustrated searching for information [OR= 1.73 (1.32, 2.28); $p<0.001$] compared to those reporting high satisfaction. Respondents with low Internet satisfaction were less likely to have a telehealth appointment [OR=0.74 (0.59, 0.93); $p=0.01$] or access their online medical records at least once [OR=0.70 (0.51, 0.95); $p=0.02$] over the past 12 months. **Conclusion:** Lower satisfaction with the Internet is associated with cancer information-seeking experiences and hinder use of online resources that can complement in-person care.

Biosketch: Maria Rincon, PhD, MPH, is a Cancer Research Training Award Fellow (CRTA) in the Office of the Associate Director of the Behavioral Research Program. Under the mentorship of Dr. Richard Moser, Maria's work focuses on assessments and methods, particularly involving the Health Information National Trends Survey (HINTS), and HINTS-related resources, including the HINTS Data Linkage Project (HDLP). Maria also contributes to NCI-supported objectives for Healthy People 2030, and dissemination and engagement efforts of the Group-Evaluated Measures (GEM), a site supporting use of previously evaluated measures. Maria earned her PhD in Social and Behavioral Sciences from Temple University. For her dissertation, Maria assessed the eHealth Literacy Questionnaire (eHLQ) in a low-income, urban minority population of cancer patients in Philadelphia, PA. Prior to her doctoral studies, Maria completed a 2-year internship in health communications in the Outcomes Research Branch with DCCPS's Healthcare Delivery Research Program. Maria received a Master of Public Health in epidemiology from the Yale School of Public Health. She holds a Bachelor's degree in Biology from the University of South Florida. Maria's research interests focus on around perceptions and outcomes in cancer, ehealth literacy, adoption and use of digital health technology.

Oral Session 2:

Title: *Navigating Health Information on Social Media: Motivations and Behaviors in Sharing Short Videos*



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Chloe Huelsnitz, PhD, MPH, Behavioral Research Program, Office of the Associate Director

Co-authors: Katie Heley, PhD, MPH and Jennifer M. Bowers, PhD, MPH and Rebecca Ferrer, PhD and William M. P. Klein, PhD

Mentor: William M. P. Klein, PhD, Associate Director, Behavioral Research Program, Office of the Associate Director

Background: Short video apps like Instagram Reels and TikTok provide novel ways to share health content online. With large user bases and engagement-focused algorithms, understanding what motivates people to share health-related videos is crucial. These motivations influence which videos go viral and potentially impact individuals' health beliefs and behaviors. **Methods:** Study 1 involved semi-structured interviews with young adults about their perceptions of short video apps, sharing and receiving videos, and the effects on their health beliefs/behavior. Thematic analysis was used on the transcripts. Study 2 involved a survey of young adults on Prolific to assess similar constructs and examine generalizability, analyzed using frequency statistics and t-tests. **Results:** In Study 1, 22 participants (M age = 21 years; 73% women; 50% White) completed interviews. Most shared health-related videos occasionally, mainly with friends, if they perceived the videos as useful or relevant to the recipient's health concerns. Sensitive content was shared less often. Participants felt supported when receiving health content. In Study 2, 287 participants (M age = 22 years; 53% women; 49% White) completed the online survey. They shared health content with close friends infrequently, mainly when the video was perceived as helpful. The main reasons for not sharing included not typically sending health content and the video not being relatable. Participants were 'somewhat unlikely' to share a healthy eating video with a friend unless the friend expressed interest in eating healthier. Similar trends were observed for skincare videos, with personal relevance significantly increasing the likelihood of sharing ($t = -12.14, p < .001$). **Conclusion:** Young adults share content perceived as useful or relevant but are cautious with sensitive content. Personal relevance and perceived utility are key factors in sharing behavior, informing strategies to enhance the dissemination of beneficial health messages and mitigate harmful content.

Biosketch: Chloe Huelsnitz, PhD, MPH, is a Cancer Prevention Fellow with a primary appointment in the Office of the Associate Director in the Behavioral Research Program and a secondary appointment in the Clinical Genetics Branch in DCEG. She is mentored by Dr. Bill Klein and Dr. Payal Khincha. Dr. Huelsnitz's research focuses on understanding how close relationships (e.g., friends, family, romantic partners) affect individuals' engagement in cancer prevention behaviors (e.g., diet, physical activity, vaccination, sleep). She is especially interested in understanding the ways in which relationship partners intentionally and unintentionally affect each other's health beliefs and behaviors in ways that can be helpful or harmful to the relationship. In DCEG, Dr. Huelsnitz works with the Li-Fraumeni Syndrome Study's Psychosocial Team on projects related to scanxiety, social influence among LFS family members, cancer survivorship, and health behavior engagement. Outside of work, Chloe enjoys creating miniatures (e.g.,



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dollhouse rooms, miniature clay foods), baking fancy desserts, and spending time with her 5 nibblings (with #6 due in August!).

Title: *Prevalence of Cancer Survivors Diagnosed During Adolescence and Young Adulthood in the United States*

Lindsey L. Page, PhD, MPH, Office of Cancer Survivorship (OCS)

Co-authors: Theresa P. Devasia PhD and Angela Mariotto, PhD and Lisa Gallicchio, PhD and Michelle A. Mollica, PhD, MPH, RN, OCN and Emily Tonorezos, MD, MPH

Mentor: Emily Tonorezos, MD, MPH, Office of Cancer Survivorship (OCS)

Background: Adolescent and young adult (AYA) cancer incidence rates are rising, and survivors are at risk for numerous cancer and treatment related consequences. Despite evidence indicating unique, unmet needs in this population, epidemiologic data are lacking. **Purpose:** To estimate the number of individuals living with a history of cancer who were diagnosed during the AYA period. **Methods:** Prevalence of cancer survivors diagnosed between the ages of 15 and 39 years was estimated using data from the Surveillance, Epidemiology, and End Results (SEER) program as of January 1, 2020. Limited duration prevalence data were used to generate complete prevalence by sex, years since diagnosis (0-<1, 1-<5, 5-<10, 10-<15, 15-<20, 20+), and attained age at estimate (15-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70+) for the 15 most common AYA cancer sites. **Results:** As of 2020, there were 2,111,838 AYA cancer survivors living in the United States. Of those identified, 65.6% were female and 43.7% were 20+ years post-diagnosis. The cancer sites with the highest prevalence were breast (24%) and thyroid (23%) among females and testis (31%) among males. Across the population, the highest percentage of AYA survivors were in the attained age category of 40- to 49-years of age (overall: 25.3%; males: 26.6%; females: 24.6%). **Conclusion:** Approximately 11% of the survivor population in the United States is comprised of individuals diagnosed in the AYA period with many living decades after diagnosis. Estimates from this study highlight public health burden of AYA cancer survivors and emphasize the necessity of survivorship-focused care and research.

Biosketch: Lindsey L. Page, PhD, MPH, is a Cancer Prevention Fellow in the NCI Office of Cancer Survivorship. Dr. Page's research explores the relationship between cognitive decline, frailty, and physical activity in cancer survivors. Specifically, her recent work has aimed to examine subpopulations of survivors at greatest risk for cancer-associated cognitive decline and to identify neurobiological indicators of the effects of physical activity on brain health. Dr. Page is also interested in examining survivors' adherence to physical activity recommendations and opportunities to implement lifestyle-based physical activity interventions to optimize quality of life in cancer survivorship. Prior to joining



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NCI, Dr. Page received her BS in Kinesiology from the University of Rhode Island, MS in Health and Exercise Science from Wake Forest University, PhD from the University of Nebraska Medical Center in Patient-Oriented Research, and MPH from Harvard T.H. Chan School of Public Health with a focus in Quantitative Methods. During her time as a graduate fellow, she coordinated exercise trials aimed to improve cognition, fitness, and quality of life in breast cancer survivors. She also received certification from the American College of Sports Medicine as a Clinical Exercise Physiologist (ACSM-CEP) to help individuals with chronic conditions adopt and maintain healthy lifestyles.

Title: *Visual Depictions of Cancer Risk: A Systematic Review*

Heather Platter, PhD, MS, Office of the Associate Director, Behavioral Research Program, DCCPS

Co-authors: Megan C. Roberts, PhD and Dannielle E. Kelley, PhD and Elizabeth L. Seaman, PhD and Erin M. Ellis, PhD and Paul K. J. Han, PhD and William M. P. Klein, PhD

Mentor: William M. P. Klein, PhD, Associate Director, Behavioral Research Program

Background: Cancer risk information is increasingly communicated to and sought by the public, yet it is unclear if it is accurate and understandable for a diverse audience. Research supports the use of visual risk depictions to overcome barriers related to health literacy and numeracy, yet it is unclear which are most effective for conveying cancer risks. The aim of this systematic review was to understand the effectiveness of different visual risk communication approaches within the context of cancer risk communication. **Methods:** A search using PubMed, PsychINFO, and EMBASE was conducted from 4/18/2018 to 1/22/24. Studies were screened for inclusion in three phases; 1) abstract review based on inclusion criteria, 2) full text review, and 3) if eligibility was confirmed, authors completed data extraction. Specifically, we examined 1) content components specific to visual format (e.g., types of icons used) and 2) context (e.g., cancer site). **Results:** The systematic search resulted in 3,963 unique articles after duplicates were removed. As of 6/7/24, a total of 42 manuscripts with 44 studies were considered suitable for inclusion (113 articles left to screen for data extraction). Results contained 32 quantitative, 7 qualitative, and 5 mixed-methods studies. Most studies focused on breast cancer (44%), followed by colorectal (20%) and general cancer (16%). Across studies, most participants were female (M=72%) and White (M = 72%). Only 11% of studies sampled participants with low numeracy and 5% with racial/ethnic minorities. Icon arrays (57%) and bar graphs (30%) were the most tested visual risk depictions with health cognitions, knowledge, preference as the most evaluated outcomes. **Conclusion/Discussion:** Icon arrays and bar graphs are the most studied, but icon arrays generally perform better relative to other visual risk formats. This research can guide researchers and practitioners on how to effectively communicate cancer risks to enable informed decision-making.



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Biosketch: Heather Platter, PhD, MS, is a Cancer Prevention Fellow in the Office of the Associate Director, with a secondary appointment in the Tobacco Control Research Branch of the Behavioral Research Program within the Division of Cancer Control and Population Sciences at the National Cancer Institute. Dr. Platter's research focuses on health literacy and risk/health communication, with a focus on risk perception, health misinformation, and health decision-making using a health equity lens. She is dedicated to developing clear health and risk communication messaging that aids health decision-making among populations experiencing health disparities. Her research examines how low health literacy and numeracy contribute to disparities in healthcare access and outcomes, ways to mitigate defensive processing of health communications due to misinformation and risk perception biases, and the influence of health beliefs, affective factors, and social processes (such as self-affirmation) on responses to risk communications across different behavioral domains. During her time at the NCI, Dr. Platter has received two NCI Director's Awards for outstanding mentor and emerging leader as well as the Cancer Prevention Fellowship Merit Award for uniquely rising to the highest level of science, leadership, and service.

Title: *Harmonization of Real-World Data to Common Data Elements for the National Childhood Cancer Registry*

Austin Fitts, PharmD, Surveillance Informatics Branch (SIB), Surveillance Research Program (SRP)

Mentor: Betsy Hsu, PhD, MPH, Chief, Surveillance Informatics Branch (SIB), Surveillance Research Program (SRP)

Overview: Cancer amongst children and adolescents is the primary cause of death from disease for children over the age of 1.¹ Leveraging all available data is necessary to conduct highquality population level research studies in rare diseases such as childhood cancer. Data captured by research consortiums, hospitals, and NCI-supported Cancer Centers are typically stranded in institutional data silos and unavailable for secondary data analyses within and across institutions.² **Methods:** The National Cancer Institute (NCI) Childhood Cancer Data Initiative (CCDI) received heterogenous, unharmonized data submissions, including electronic health record (EHR) data, from ten Cancer Centers for patients aged 19 and younger. The data received was aggregated and linked to central cancer registry data from participating registries in the National Childhood Cancer Registry (NCCR) which generates a population-based estimation of pediatric cancer cases by combining data from multiple cancer registries. Submitted data elements were mapped to Common Data Elements (CDEs) within NCI's Cancer Data Standards Registry and Repository II (caDSR II). **Results:** We received 20.7 million rows of data from 14,800 distinct patients across 10 Cancer Centers. We identified 888 unique data elements amongst these 10 Cancer Centers; 345 were submitted by more than one Cancer Center and were eligible for harmonization. Treatment information, including chemotherapy, radiation, transplants, and concomitant medications,



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accounted for 34% (n=116) of included data elements. Other data element categories include outcomes and complications, genomics, patient demographics, diagnosis, and procedures. **Discussion:** The NCCR is a next-generation national-level cancer registry infrastructure under development that augments existing cancer registry data with linked EHR data provided by Cancer Centers to allow for more robust longitudinal studies in pediatric cancer. Future direction includes finalizing and publishing the NCCR data model and an initial NCCR harmonized dataset for use by the cancer research community through the upcoming NCCR Data Platform.

References:

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2. Faulk KE, Anderson-Mellies A, Cockburn M, Green AL. Assessment of enrollment characteristics for Children’s Oncology Group (COG) upfront therapeutic clinical trials 2004–2015. *PLoS One*. 2020 Apr 23;15(4):e0230824. doi: 10.1371/journal.pone.0230824. PMID: 32324751; PMCID: PMC7179840.

Biosketch: Austin Fitts, PharmD, is a Cancer Research Training Award (CRTA) fellow in the SRP Surveillance Informatics Branch, primarily working on data harmonization of electronic health record data submitted through a Cancer Center supplement grant for distribution through the upcoming National Childhood Cancer Registry (NCCR) Data Platform. In addition, Dr. Fitts is assisting the NCI collaboration with the US Department of Energy working to extract treatment information from registry abstracts using machine learning and working on an international data sharing collaboration to evaluate the effects of socioeconomic status and rurality on pediatric cancer outcomes. Before joining SRP, Dr. Fitts graduated from pharmacy school at the University of Mississippi and completed a clinical residency specializing in informatics at Vanderbilt University Medical Center. The major residency project was to implement and evaluate the effectiveness of a real-time prescription benefits program that identified lower cost alternatives on a patient’s formulary and notified physicians of this alternative. Dr. Fitts simultaneously worked as a part-time contractor working to expand the pediatric content on the HemOnc.org website for utilization by the NCCR.

Title: *Warning Labels About Alcohol and Cancer Risk: Potential Cognitive and Behavioral Effects of Message Sources, Cancer Types, and Risk Relationships*

Jackie Payne, PhD, MPH, Office of the Associate Director, BRP

Co-authors: Carlos Garrido, PhD, MS, MPH and Jacob Rohde, PhD, MPH and David Berrigan, PhD, MPH and Richard P Moser, PhD and Bill Klein, PhD

Mentor: Paul Han, MD, MS, MPH, Senior Scientist, Office of the Associate Director, BRP



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Background: Given the carcinogenic effects of alcohol, raising public awareness of the association between alcohol consumption and cancer is an important public health need, but little is known about how communicating this association affects people’s alcohol-related perceptions, attitudes, and behaviors. Professional organizations and health policymakers are in the position of designing such communications, including warning labels on alcoholic beverage containers, which may be an effective way to reach current drinkers. **Methods:** We conducted online message testing experiments among a convenience sample of US adults (n = 2,789), aimed at evaluating the effects of alternative warning label messages that differed along 3 key attributes: 1) message source (i.e., unspecified, “government,” “Surgeon General”), 2) cancer types linked to alcohol (i.e., “several,” “colon,” “colon & breast,” “esophageal & head and neck”), and 3) risk relationship between alcohol and cancer (i.e., unspecified, “no safe level,” “the more you drink, the higher the risk,” “the less you drink, the lower the risk”). **Results:** Cancer type was found to affect causal beliefs about alcohol and cancer (perceived causal beliefs were significantly higher for “colon” vs. other cancers); both message source and cancer type affected perceived message credibility (perceived credibility was significantly higher for “Surgeon General” vs. other sources, and for “colon” vs. other cancers); and risk relationship affected intentions to consume alcohol among current drinkers (intentions to drink less were significantly higher for “no safe level” vs. other risk relationships). **Conclusion:** The wording of messages on warning labels regarding the link between alcohol use and cancer has different cognitive and behavioral effects. Understanding how alternative messages influence people has important implications for how this information should be communicated to the public. Ideally, warning label messages should convey accurate information that influences viewers to minimize their risk by engaging in behavior change, without inducing negative psychological cognitions.

Biosketch: Jackie Payne, PhD, MPH, is a Cancer Prevention Fellow in the BRP Office of the Associate Director, where she conducts research aimed at understanding the psychological and interpersonal processes that influence medical decision-making. Before joining BRP, she received her PhD in Social and Health Psychology from Stony Brook University in 2023 and her MPH in Behavioral Sciences and Health Education from Emory University in 2016.